(54) Title: COMMUNICATIONS TERMINAL AND OPERATING METHOD
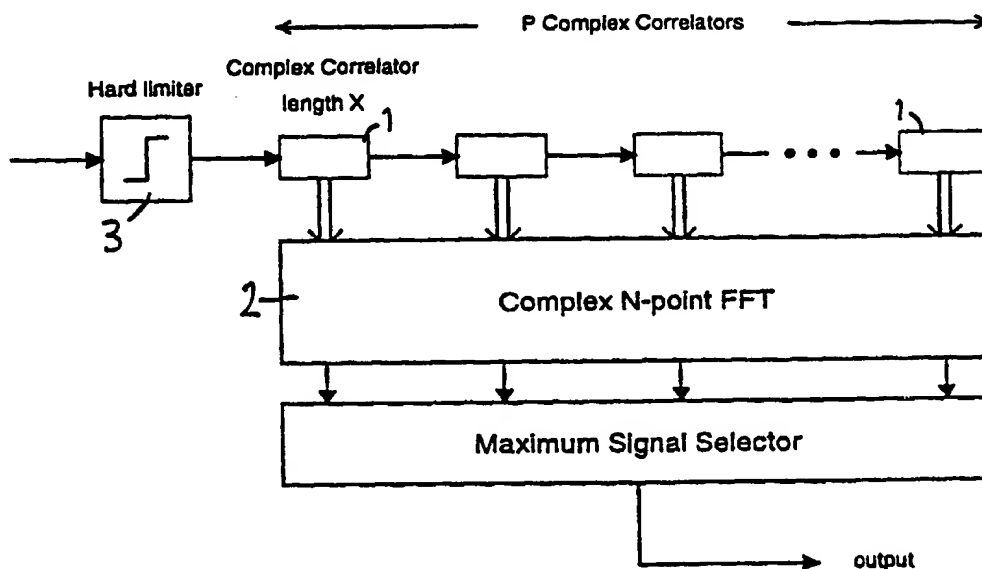
(57) Abstract

A non–coherent technique employs a zero padded FFT for the fast acquisition of direct sequence spread spectrum signals in the presence of large Doppler shifts. The application of a FFT to code acquisition results in decreased acquisition time, and can improve the probability of detection. A set of partial correlators (1) and a zero padded FFT (2) are used to reduce the search region for code acquisition whilst maintaining good frequency resolution for Doppler offset. This approach will prove most pertinent in future reconfigurable terminals.